

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of  
Shigeru Nakajima  
Application No.: 10/649,694  
Filing Date: August 28, 2003  
Title: VALVE TIMING CONTROL DEVICE



MAIL STOP AMENDMENT  
Group Art Unit: 3748  
Examiner: Zelalem Eshete  
Confirmation No.: 6760

THIRD  
INFORMATION DISCLOSURE STATEMENT  
TRANSMITTAL LETTER

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Enclosed is a THIRD Information Disclosure Statement and accompanying form PTO-1449 for the above-identified patent application.

- ☐ No additional fee for submission of an IDS is required.
- ☐ The fee of \$180.00 (1806) as set forth in 37 C.F.R. § 1.17(p) is also enclosed.
- ☐ A statement under 37 C.F.R. § 1.97(e) is also enclosed.
- ☒ A statement under 37 C.F.R. § 1.97(e), and the fee of \$180.00 (1806) as set forth in 37 C.F.R. § 1.17(p) are also enclosed.
- ☐ Charge \_\_\_\_\_ to Deposit Account No. 02-4800 for the fee due.
- ☒ A check in the amount of \$ 180.00 is enclosed for the fee due.
- ☐ Charge \_\_\_\_\_ to credit card. Form PTO-2038 is attached.

The Director is hereby authorized to charge any appropriate fees under 37 C.F.R. §§ 1.16, 1.17 and 1.21 that may be required by this paper, and to credit any overpayment, to Deposit Account No. 02-4800. This paper is submitted in duplicate.

Respectfully submitted,

BUCHANAN INGERSOLL PC

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By Matthew L. Schneider  
Matthew L. Schneider  
Registration No. 32,814

Date: November 8, 2005



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Patent Application of )  
Shigeru Nakajima ) Group Art Unit: 3748  
Application No.: 10/649,694 ) Examiner: Zelalem Eshete  
Filed: August 28, 2003 ) Confirmation No.: 6760  
For: VALVE TIMING CONTROL DEVICE )

**THIRD INFORMATION DISCLOSURE STATEMENT**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In accordance with the duty of disclosure as set forth in 37 C.F.R. § 1.56, the accompanying information is being submitted in accordance with 37 C.F.R. §§ 1.97 and 1.98.

The following document was cited in an Official Letter recently issued by the German Patent Office in connection with the corresponding German application. A copy of the Official Letter and an English language translation is enclosed.

U.S. Patent Application Publication No 2002/0050258 A1.

A fee of \$180.00 (1806) as set forth in 37 C.F.R. § 1.17(p) is enclosed.

I, the undersigned, hereby state that each item of information contained in this Information Disclosure Statement was first cited in a communication from a foreign patent office in a counterpart foreign application not more than three (3) months prior to the filing of this Information Disclosure Statement.

To assist the Examiner in entering the foregoing information into the record, the above-noted document is cited on the attached for PTO-1449 and copies of the documents are enclosed.

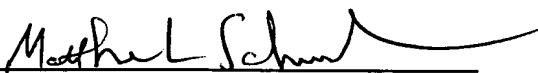
11/09/2005 HALI11 00000156 10649694  
01 FC:1806 180.00 DP

The Examiner is respectfully requested to consider the foregoing information and to acknowledge such consideration by initialing, signing and returning the enclosed additional copy of form PTO-1449.

Respectfully submitted,

BUCHANAN INGERSOLL PC

Date November 8, 2005

By:   
Matthew L. Schneider  
Registration No. 32,814

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# THIRD INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet

1

of

1

**Complete if Known**

Application Number	10/649,694
Filing Date	August 28, 2003
First Named Inventor	Shigeru Nakajima
Examiner Name	Zelalem Eshete
Attorney Docket Number	000409-052

**U.S. PATENT DOCUMENTS**

Examiner Initials	Document Number	Kind Code (if known)	Name of Patentee or Applicant of Cited Document	Issue/Publication Date (MM-DD-YYYY)
	2002/0050258	A1	Sato et al.	05-02-2002

**FOREIGN PATENT DOCUMENTS**

Examiner Initials	Document Number	Kind Code (if known)	Country	Date of Publication (MM-DD-YYYY)	STATUS						
					Translation	Partial Translation	Eng. Lang. Summary	Search Report	IPER	Abstract	Cited in Spec

**NON-PATENT LITERATURE DOCUMENTS**

Examiner Initials	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.

Examiner Signature	Date Considered
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with M.P.E.P. § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

Enclosure of September 30, 2005

Your ref.: W08215      Our ref.: DE 39505

German Patent Application No.: 103 39 669.1-13

Applicant: AISIN SEIKI KABUSHIKI KAISHA

Title: 'Valve Timing Control Device'

**TRANSLATION****of the Official Letter dated August 10, 2005  
(rec'd September 6, 2005)**

In the present Official Letter the following reference is mentioned for the first time (the numbering assigned thereto shall also be adhered to in the further course of the proceedings):

If it is not intended to file a substantial reply, it is requested that receipt of the Official Letter be informally acknowledged.

**5. US 2002/0050258 A1**

## I.

The prospect of the grant of a patent cannot be held out for lack of inventive activity, the rejection of the application is to be expected.

## IIa.

Main request of August 9, 2005

Claim 1 newly filed as main request on August 9, 2005 is delimited against reference 1 (DE 198 49 959 A1) in its preamble and differs from this reference by its characterizing features.

However, these cannot be regarded as being based on an inventive activity, as in reference 5, figures 12 and 13, as well as in paragraphs 0111 to 0113, both the radial extension of the hook portion itself and that of the engaging portion as radial groove in a plate 108 opened towards the rotor is described at least for a hook portion of the torsion spring 160.

Here, the skilled person learns that by designing the hook portion such that it extends radially and not axially, constructional space and mass can be saved, which is always of a very high interest. If the skilled person applies this technical teaching consistently to a valve timing control device according to reference 1, where both hook portions extend in an axial direction, the skilled person can save constructional space and mass and will thus arrive at a subject matter according to claim 1.

Thus, the subject matter according to claim 1 is not based on the required inventive activity, claim 1 cannot be allowed.

The subordinate claim 2 is not allowable if only for formal reasons and was already decided on as a further development lying within the scope of activities of the skilled person.

#### IIb.

Auxiliary request of August 9, 2005

Claim 1 according to the auxiliary request in the interview of August 9, 2005 is claim 1 of June 17, 2005.

Here, too, the preamble of claim 1 is delimited against reference 1, the differences result from the characterizing features. However, these differences are not based on an inventive activity:

A skilled person who wants to reduce the constructional space and the mass of a valve timing control device is prompted by reference 5 to form the ends of the torsion spring as hook portions extending in the radial direction and being engaged with engaging portions formed on first and second accommodating recesses. These engaging portions in the accommodating recesses are opened towards the plate or rotor, corresponding to the technical teaching of reference 5, paragraphs 0111 to 0113 together with figures 12 and 13.

As a valve timing control device according to reference 1 shall be further developed, the instructions of reference 5 in respect of the arrangement and formation of the fixing at the rotor are evidently superfluous to the skilled person, so that he can freely select in this respect.

As several hydraulic bores are already provided in the rotor of reference 1, the skilled person will arrange the first engaging portion where there is most space. According to figure 2 of reference 1, this is the case in the area of the largest projecting portion below the opening 23.

Thus, the skilled person arrives at the subject matter according to claim 1 by appropriately combining the technical teachings of references 1 and 5 without having to perform an inventive activity.

Therefore, claim 1 according to auxiliary request 1 cannot be allowed.

The subordinate claim 2 has already been commented on.

By this examination result, a further interview does not seem to be expedient in the present view of the Examining Division. If the applicant requests a further interview, the expediency thereof would have to be substantiated.

Moreover, prior to such an interview, at least a new claim 1 would have to be filed and the novelty and inventive activity as well as the original disclosure thereof would have to be explained and substantiated.

The rejection of the application has to be expected, in particular since also the remaining documents do not reveal any features which could substantiate an inventive activity.

Examining Division for class F01L

Dr. Hauser